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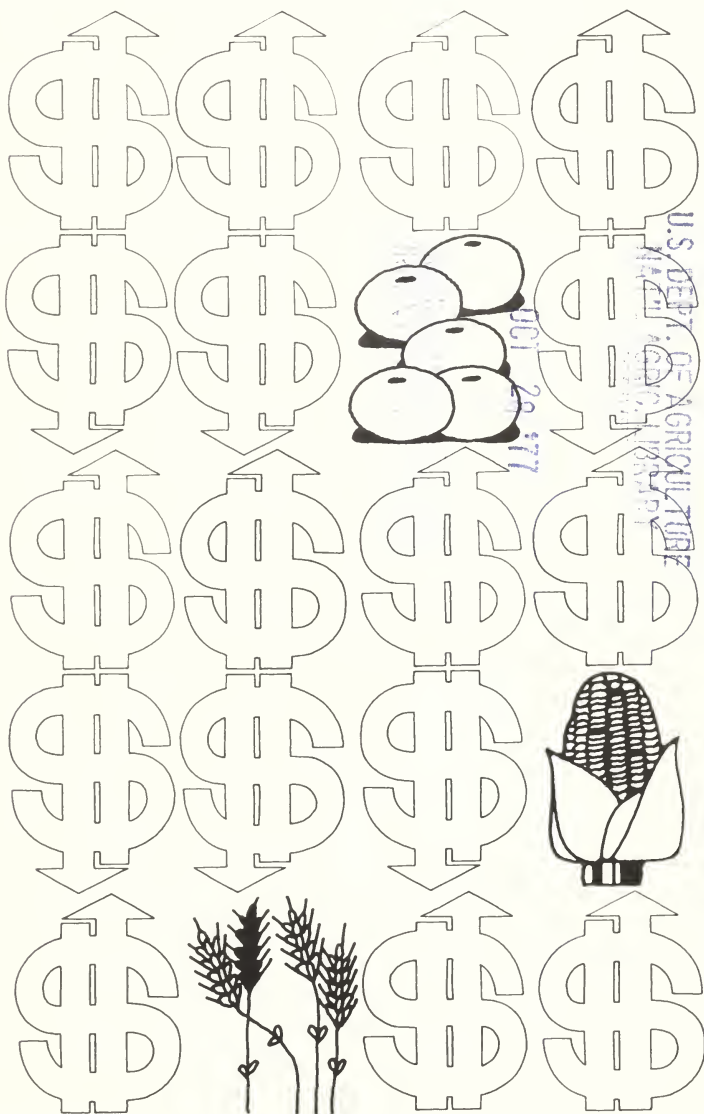
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agricultural situation

THE CROP REPORTERS MAGAZINE • AUGUST 1977
U.S. DEPARTMENT OF AGRICULTURE • STATISTICAL REPORTING SERVICE

CROP REPORTS: WHAT EFFECT ON PRICES?



CROP REPORTS: WHAT EFFECT ON PRICES?

True or false:

1) If the Crop Reporting Board reduces its crop production forecast from one month to another, market prices rise, and vice versa.

2) Prices in the commodity markets are less volatile following a crop report.

If you decided the first statement was "true" and the second one "false," you were right—according to a recent study by two researchers at the University of Minnesota.

Economist Dr. James Houck and research assistant Daniel Pearson investigated the effects of SRS crop reports on the prices of four major farm commodities. Using daily prices before and after Crop Production and Prospective Plantings reports over a 13-year period, the team attempted to measure the market's reaction to the release of the USDA figures.

Questions about the effect of crop reports on market prices began surfacing with changing market conditions in the early 1970's. Those years were characterized by low levels of carryover stocks coupled

with relatively high domestic and export demand—conditions that sharply increased price fluctuation in the commodity markets.

Before that time, large grain stocks had kept prices more or less at loan rates, and changes in supply and demand outlook caused only relatively small changes in price. But when the early 1970's ushered in greater volatility in the commodity markets, farmers and grain merchants became increasingly aware of the factors that affect prices.

Concern about one of these factors—SRS crop reports—prompted SRS to request the Pearson-Houck study. The team's first hypothesis—that an upwardly adjusted crop forecast will depress prices—is basic economics. Given a level of demand, larger supplies will result in lower prices, and vice versa.

Here's what happens in the commodity markets: Traders have a wealth of information from which to make their own estimates of what the SRS reports will show. They then take positions in the market based on these assumptions, in effect trying to guess what the SRS forecasts will say and to profit by "being there" before the rest of the trade.

If the traders guess correctly, market prices adjust before the release date and change very little, if at all, afterwards. If the trade guesses



wrong, however, there will be a sizable price adjustment after the SRS report as traders scramble to correct their positions.

Houck and Pearson also examined the effects of crop reports on day-to-day price fluctuations during the week before and the week after SRS releases, using this rationale. . .

In the days before a report is released, the market is filled with uncertainty. All traders know that the SRS report represents the most comprehensive information available on the condition of upcoming crops. And each trader has his own expectation of what the report will show.

As a result, there's a wide range of opinions about the new production figures and where the new supply curve will be located. Any number of factors—a slight change of weather in the Corn Belt, for instance—can greatly affect these expectations. Such conditions easily lead to volatile prices.

However, when SRS releases its report, uncertainty decreases. Traders once again have a common point of reference and their range of expectations narrows. This range never quite shrinks to a single point, though.

That's because SRS releases its production forecasts between the 9th and 12th of each month, based

on conditions on the first day of the month. Therefore, there's always some doubt about possible changes in growing conditions since the data were gathered.

The reports nonetheless reduce uncertainty about crop production levels, which forms the basis for the second hypothesis tested by Houck and Pearson: that improved information from USDA makes prices less volatile.

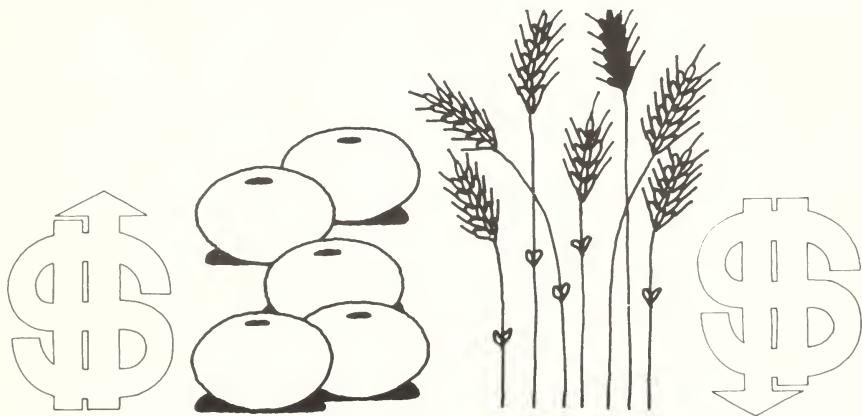
To test their two assumptions, Houck and Pearson ran a number of statistical tests on daily cash market prices from 1963 to 1975 for four individual crops: corn, soybeans, winter wheat, and spring wheat. Here's a rundown, by commodity, of the Houck-Pearson findings. . .

Corn

The 13-year period showed a fairly strong relationship between the quantity forecast by SRS and subsequent prices—i.e., a change in expected supplies sent prices in the opposite direction.

However, compared with prices a week after the report, the day after showed a much stronger effect, inferring that corn prices tend to react to reports immediately following their release, and then settle back toward original levels over the rest of the week.

Other tests showed that day-to-day corn prices became more vola-



tile following crop reports. Surprisingly, this happened during the first 10 years (1963-72)—a time when large stocks and government programs kept prices relatively stable. The findings also run counter to the hypothesis that price fluctuation should decline following a crop report.

The same tendency did not surface during the last 3 years of the study period—an era when one would expect free market policies to increase volatility.

Corn prices proved more volatile in October than any other month—which may be because October's the primary harvest month for corn. Tests results also indicate that if corn prices moved higher after a crop report, greater fluctuation followed.

Soybeans

Month-to-month adjustments in the size of soybean forecasts showed a significant effect on price changes from a day before to the day after crop reports, but only when forecast changes of less than .8 percent weren't included.

As with corn, price fluctuation increased during the week following SRS releases. This held true for the most recent 3-year period, the first 10 years, and the 13 years combined. Unlike corn, however, soybean prices did not tend to be more

volatile in any single month.

Spring Wheat

The relationship between price and quantity changes for spring wheat was the strongest of all crops studied. Like corn, spring wheat prices appear to react immediately to a change in expected production levels.

The most recent 3 years saw some reduction in price fluctuation following spring wheat forecasts. While these results were not found in the case of corn or soybeans, they offer some evidence that crop reports do reduce uncertainty in the marketplace.

But like corn and soybeans, prices during the first 10 years tended to be more volatile following SRS releases. One discovery about spring wheat: price changes tended to decrease as the crop year progressed.

Winter Wheat

Overall results showed no significant relationship between changes in anticipated production levels and prices the day following SRS releases.

Similarly, Houck and Pearson failed to uncover any pattern of increased price fluctuation... leaving the conclusion that the crop reports have no noticeable impact on price stability on the Kansas City wheat market.



FARMING'S FINANCIAL SHAPE

As of January 1, 1977, U.S. farm assets stood at an estimated \$634.3 billion, 13 percent over last year's record high.

Biggest gainer was farm real estate, which advanced 16 percent to \$461.3 billion. Among nonreal estate assets, only livestock showed a decrease, retreating 1½ percent to just over \$29 billion.

Farmers held an estimated \$73 billion in machinery and motor vehicles, 11 percent more than a year before, while the value of household equipment and furnishings climbed 7 percent to \$17.4 billion. Deposits and currency, United States savings bonds, and similar financial assets,

at \$33.5 billion, were up a modest 5 percent.

Entries on the other side of the ledger show liabilities totaling \$101.8 billion, leaving farm operators \$532.5 billion in equity. Farm debt advanced 12 percent during 1976, trailing the growth in assets by 1 percent and causing a slight drop in the debt-to-asset ratio.

On an individual basis, the balance sheet puts the value of an average farm at nearly \$230,500, up more than \$28,000 from 1976 and more than double the 1970 average. The table below shows how the financial statement of an average farm has changed since 1960.

BALANCE SHEET FOR THE AVERAGE FARM^{1/}

Item	1960	1970	1976	1977 ²
<i>Dollars</i>				
ASSETS				
Physical assets:				
Real estate	32,945	70,026	143,026	167,642
Nonreal estate:				
Livestock & poultry	3,848	7,949	10,622	10,566
Machinery & motor vehicles	5,739	10,934	23,716	26,526
Crops stored on & off farms ³	1,952	3,697	7,112	7,267
Household equipment & furnishings	2,419	3,334	5,842	6,314
Financial assets:				
Deposits & currency	2,313	4,025	5,623	5,854
U.S. savings bonds	1,177	1,266	1,593	1,653
Investment in cooperatives	1,071	2,438	4,201	4,651
Total	51,464	103,669	201,735	230,473
CLAIMS				
Liabilities:				
Real estate debt	3,049	9,879	18,383	20,377
Nonreal estate debt:				
Excluding CCC loans	2,909	7,166	14,185	16,247
CCC loans ⁴	294	906	129	370
Total liabilities	6,252	17,951	32,697	36,994
Proprietors' equities	45,212	85,718	169,038	193,479
Total	51,464	103,669	201,735	230,473

¹Total values divided by total number of farms.

²Preliminary.

³All crops held on farms including crops under loan to CCC, and crops held off farms as security for CCC loans.

⁴Nonrecourse CCC loans secured by crops owned by farmers. These crops are included as assets in this balance sheet.



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FEATURES SCHEDULED FOR OCTOBER AND NOVEMBER

Sept. 30	Agricultural Prices	Nov. 2	Feed
Oct. 3	World Agriculture	Nov. 3	Vegetables
Oct. 4	Crop-Weather	Nov. 4	Poultry Slaughter
Oct. 5	Agricultural Outlook	Nov. 7	Fruit
Oct. 6	Livestock & Meat	Nov. 8	Crop-Weather
Oct. 7	Agricultural Outlook	Nov. 9	Wheat
Oct. 11	Crop-Weather	Nov. 10	Crop Production
Oct. 12	Crop Production	Nov. 11	Supply & Demand
Oct. 13	Supply & Demand	Nov. 14	Cattle on Feed/Outlook Conference
Oct. 14	Milk Production	Nov. 15	Outlook Conference
Oct. 17	Livestock & Meat	Nov. 16	Outlook Conference
Oct. 18	Crop-Weather	Nov. 17	Outlook Conference
Oct. 19	Cattle on Feed	Nov. 18	Livestock & Meat
Oct. 20	Fats & Oils	Nov. 21	Cotton & Wool
Oct. 21	Eggs, Chickens, Turkeys	Nov. 22	Crop-Weather
Oct. 25	Grain & Rice Stocks	Nov. 23	Poultry & Eggs
Oct. 26	Vegetables	Nov. 25	Livestock Slaughter
Oct. 27	Livestock Slaughter	Nov. 28	Farm Labor
Oct. 28	Fruit	Nov. 29	Crop-Weather
Oct. 31	Agricultural Prices	Nov. 30	National Food
Nov. 1	Crop-Weather		

(Items may change for late breaking news.)

TIPS FOR NEW TRADERS

In a reversal of the consumer warning, *caveat emptor*, USDA's Foreign Agricultural Service (FAS) urges livestock exporters to beware of the hurdles in overseas selling.

As the world market for meat and milk expands, so must the producer's knowledge of how to successfully deal with foreign customers. Entrance into the breeding stock export market can pay handsome dividends, or—without the proper homework—result in dismal failure.

For the beginner, FAS has a publication entitled, *Suggested Procedures for Exporting Breeding Cattle and Swine*. It contains not only practical advice for the would-be exporter, but tells him the kinds of information he'll need to make his venture successful, and where to get it.

For example, the publication suggests that the new exporter will probably find it easier—and safer—to start in established markets rather than exploring the unknown.

For help in market selection, beginners are urged to get a copy of *Guide for U.S. Cattle Exporters*, which details the import/export health regulations of 73 countries, the types of breeds they import, prices, and related data.

U.S. Agricultural Attachés also gather and disseminate trade leads through a computerized direct mail service and a weekly trade bulletin, *Export Briefs*. The direct mail service is for specific livestock products while *Export Briefs* covers all trade inquiries received from Attachés. Further information on both is available from the Export Trade Services Division, FAS, Rm. 5940 South, USDA, Washington, D.C. 20250.

But market selection is just the beginning. *Suggested Procedures* . . . alerts exporters to all the

complicated aspects of selling abroad—from sales presentations and likely questions from buyers to shipping preparation and freight costs, necessary documents, and credit arrangements.

Single copies of the *Guide for U.S. Cattle Exporters* and *Suggested Procedures for Exporting Breeding Cattle and Swine* are available from FAS Information, Rm. 5918 South, USDA, Washington, D.C. 20250.

NEXT TIME TRY SUNFLOWERS

Traditionally, when a farmer lost his winter wheat crop because of drought, he planted grain sorghum as a backup.

Scientists with USDA's Agricultural Research Service say that sunflowers may be a better alternative, if early summer rainfall is favorable. Sunflowers, they report, root more deeply than sorghum and therein lies the difference.

While grain sorghum seldom reaches water deeper than 4 feet, sunflower plants can extract water from depths of 6 to 7 feet. Therefore, while both crops are drought-tolerant and use most of the water available to them, sunflowers have a larger area to work with.

In 1975, at Bushland, Tex., dryland grain sorghum with good soil moisture at planting time yielded 2,300 pounds per acre, while sunflowers yielded 1,400. The following year, under very dry conditions, sorghum yielded 500 pounds, and sunflowers, only 340. Despite this disparity, the market for sunflower seeds could make sunflowers the more profitable crop.

Scientists say the best time to plant sunflowers is around May 1, but that producers can still expect good yields by planting between early April and mid-May. The crop can be put in the ground as late as July 15, but sharply lower yields will result.

A NEW MIX OF HIRED WORKERS...

Farmers are looking to youth to get the job done. In a preliminary report, USDA's Economic Research Service states that hired farm labor is increasingly young, includes fewer blacks, and works more and more on a part-time basis.

Of nearly 2.8 million people hired to work on U.S. farms and ranches in 1976, 59 percent were under 25 years old, an increase of 14 percent over the past 15 years. But while young workers made up the majority, most worked on a short-term, seasonal basis, performing only 45 percent of the man-days of hired work. In contrast, full-time farmworkers did 65 percent of all hired labor, though they represented only 27 percent of the hired work force.

Ten years ago blacks made up 27 percent of all hired farmworkers. By 1976 that figure had dipped sharply to 14 percent. Altogether, minorities

accounted for a fourth of all persons hired for farmwork, but made up 38 percent of the workers primarily dependent on farming for their livelihood.

Farmwork has become a secondary occupation for a growing number of people. Last year, nonfarm work was the primary source of income for 17 percent of those hired, up from 12 percent a decade ago. They earned an average salary of about \$6,000 from farm and non-farm sources. Those who held down jobs in both areas but relied mostly on farmwork brought in roughly \$4,700. Working exclusively on farms meant an average yearly income of just over \$5,000.

Regional trends over the past decade show a decline in dependence on hired farm labor in the South, where the share of the total hired farm workforce dropped from about half to under 40 percent. The Northeast's share continued at about 10 percent; the north central and western regions each employed more than 25 percent.

...AND WHAT THEY EARNED IN '76

Major employment status	Total in group	Percent of farm work force	Average annual earnings		
			All workers	Persons with farmwork only	Persons with nonfarm work ¹
	Number	Percent	Dollars	Dollars	Dollars
Primarily farmworkers ²	746,000	27	4,762	5,176	4,727
Primarily nonfarm workers ³	474,000	17	6,030	- - -	6,030
Students	1,089,000	39	926	644	1,375
Housewives	244,000	9	817	588	1,365
Others ⁴	214,000	8	1,368	607	2,618
Total	2,767,000	100	2,959	- - -	- - -

¹Combined farm and nonfarm earnings.

²People who are in the labor force most of the year and employed as hired farmworkers more than half the time.

³People who are in the labor force most of the year and employed as hired farmworkers less than half the time.

⁴Includes people who were unemployed most of the year.

A SHEEP'S WORST ENEMY?

Ask a western sheep and lamb producer what the biggest threat to his flock is, and he'll probably answer, "Coyotes."

In two special surveys covering 15 Western States, predators—mainly coyotes—were cited by farmers and ranchers as the major cause of sheep and lamb deaths during 1974. Respondents to the SRS surveys blamed coyotes for 728,000 lamb deaths in 1974 and the loss of 229,000 adult sheep. That worked out to a third of the lambs lost to all causes and a fourth of the sheep deaths during the year.

Overall losses to coyotes reported in the 15 States took 8 percent of the lamb population, versus about 2.5 percent of the sheep on hand at the start of 1974.

Geography played a key role in the incidence of coyote attacks. States with public grazing ranges and mountainous terrain lost proportionately more sheep and lambs to predators, while the Great Plains States of Kansas, Nebraska, and North and South Dakota reported comparatively few coyote-related deaths.

Nevada ranchers claimed the highest rate of lambs lost to coyotes in 1974, with 29 percent of all lambs born that year. Montana and Colorado followed with 15 and 13 percent, respectively.

Hardest hit were large-scale sheep

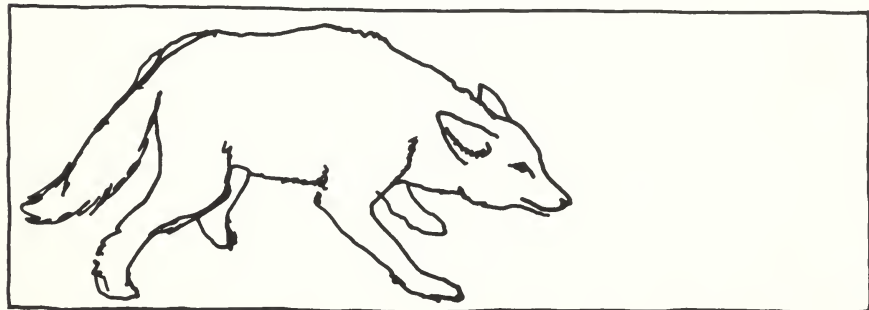
operators with herds of 2,500 or more. Most big operators reported losses ranging from below 5 to over 20 percent, while many smaller producers said they had no predator problems at all. Main reason: larger herds pasture more frequently in open ranges where exposure to coyotes is greater.

In a publication summarizing the survey findings, USDA economists estimate that coyote attacks cost western sheep producers about \$27 million in lost sales in 1974. Some 5,000 sheepmen (about a tenth of the West's total) reported losing over 10 percent of their lamb crops—and an average of \$4,000 in foregone sales.

Economists put the loss to American consumers—due to smaller amounts and heftier prices for lamb and sheep products—at \$10 million.

The problem continues, say analysts, in that rates of lamb loss advanced in all 15 States except Texas. Survey findings indicate that coyote kills may provide the leading cause.

Six of the survey States had data from before 1974 breaking down sheep and lamb deaths by *cause*. In five of the six States, reports from farmers and ranchers showed striking gains in losses to coyotes, and to a lesser extent, dogs, foxes, and other predators. Eight years of continuous data from Wyoming sheep operators offered strong evidence that predators were responsible for the upward trend in that State's lamb losses.



SURVEYSCOPE

To give our readers a clearer picture of the vast scope of SRS activities, Agricultural Situation presents a series of articles on special surveys undertaken in various States. While these are not national surveys, they are important to the agriculture in individual States.

"Branding," says Robert Carver, Wyoming agricultural statistician, "dates back to the ancient Egyptians, who might well be surprised that some 4,000 years later, we still brand livestock and thereby trace their movement through extensive data processing."

"Brands, of course, verify ownership, and cattle and sheep moved from county to county or out of Wyoming must have brand inspections, a job performed by roughly 60 full-time and 100 part-time inspectors. Each month, we edit and summarize the certificates issued by the State brand inspectors, which means processing

from 50,000 to 60,000 data cards a year."

Statewide brand inspection began in Wyoming in 1870, when cattle grazed freely throughout the West, and herds became hopelessly intermingled by the time they were rounded up and driven to market.

A brand inspector went along to the terminal markets to identify the cattle by brand, tally their number, and then notify the market the number of head for which individual owners should be paid.

Back then, the inspectors were also known as brand detectives, who became experts at spotting "burned



Age-old way of showing ownership, branding is also the means by which cattle. . .

out" or altered brands—and at tracking down those responsible.

The certificates issued by modern-day brand inspectors employed by the Wyoming Stock Growers Association contain data on the number of head being moved, the time of shipment, and origin and destination by livestock class. In compiling and processing this information, Carver's office breaks it out in over 70 different ways.

For example, one "run" shows by State of destination, the number of cattle shipped out of Wyoming in any given month, while another indicates movement out of Wyoming by class of animal, such as heifers and steers.

The Wyoming Chief Brand Inspector uses the information to monitor the workload of each State inspector, while at the University of Wyoming, economists and others apply the data to research aimed at finding more efficient ways to market livestock.

"And of course," explains Carver, "the data give our office a good indication of the number of Wyoming

cattle and sheep marketed each year, and reveal seasonal marketing trends which we use for computing seasonal average prices. The data also help us prepare State livestock inventories."

Each May, Carver's office releases separate summaries of the number of cattle and sheep moved on brand certificates during the previous year. In 1976, Wyoming cattlemen moved some 1.1 million head out of State and transferred another half a million to other points within the State.

Meantime, the number of sheep moved on brand certificates dropped 13 percent from 1975 to under 901,000 head, with lambs making up nearly 507,000 of the total.

Last year, as usual, brand inspectors put in their busiest month in October, when the number of sheep and lambs transferred out of State made up 40 percent of the yearly total. For cattle, the October tally stood at 27 percent. Movement of livestock in Wyoming is highly seasonal, with the largest numbers shipped from September through November.



...can be traced across State and county lines to auctions and other marketing points.

Briefings

RECENT REPORTS BY USDA OF ECONOMIC, MARKETING, AND RESEARCH DEVELOPMENTS AFFECTING FARMERS.

WARMTH FOR GOBBLERS. . . Scientists at the University of Minnesota are going to study the possible uses of solar heating in turkey houses. After they build a solar-collecting facility, they'll develop methods of heat distribution, and use the data to explore heating strategies for the future. The program, which is sponsored by USDA's Agricultural Research Service, is part of the continuing effort to find economical ways to save fossil fuels through solar energy. Funds for the research come from about \$½ million set aside by the Energy Research and Development Administration to study farm animal shelters. Another \$2 million has been allocated for examining solar applications to agricultural needs.

LAND-USE RETURNS. . . An expected \$185 million will go to 43 States and Puerto Rico from the sale and use of products and services from national forests and grasslands. Their cut is a 25% share of 1977 revenues that USDA's Forest Service estimates it will collect from the sale of timber and from grazing, recreation, minerals, and other land-use charges on the 187 million acres in the national forest system. By law, the money returned to the States where these lands are located must be used for public schools and roads. Payments will range from Oregon's \$75 million to Maryland's \$1,475.

FARM FATALITIES. . . Accidental farm deaths dropped to 16.1 persons per 100,000 in 1975, below the 1967 peak of 17.7, but above the year-earlier rate of 15.1—the lowest recorded during 1964-74. Machinery contributed most frequently to farm deaths, accounting for 24% of the 1974 total. Of those, 77% occurred during the prime work-months of April through October. Many victims of machinery accidents were over 55 years old, and although they represented only a fourth of the work force, they were involved in a third of the fatal accidents. Nearly half the people fatally injured by machinery in 1974 were over 55. Being crushed or struck by an object caused 18% of farm deaths—many of which were also machinery related. At least 60% of all farm fatalities are work-related but many are not: drownings constitute a major cause.

FANCYING FRUIT. . . Last year, the popularity of fruit hit its highest level in 30 years. Per capita consumption rose to more than 222 pounds (fresh weight equivalent), up nearly 9 pounds from the previous year. Consumers bought more than 87 pounds of fresh fruit per person compared with slightly less than 84 pounds in 1975. The increase favored noncitrus types such as bananas, apples, and avocados. Citrus fruit consumption actually dipped 0.6 pound to 29.2 pounds.

TWO NEW SUNFLOWER STATES. . . Large patches of yellow in South Dakota and Texas indicate the rising importance of the oil-rich sunflower. This year, the two States joined Minnesota and North Dakota in SRS's Federal estimating program for sunflower seeds. Texas producers planted an estimated 250,000 acres to sunflowers this year, and South Dakota producers, 180,000. Growers in North Dakota upped their sunflower acreage by 94%, while Minnesotans more than doubled their 1976 plantings, bringing the four-State total to 2.1 million acres. Oil-bearing varieties make up 88% of the seeded acreage.

WIND EROSION BLOWS BACK. . . Wind erosion this year is the worst since the 1950's. USDA's Soil Conservation Service (SCS) reports that nearly 8 million acres in the Great Plains sustained severe wind damage from November 1976 through last May. That compares with slightly over 6 million acres during the same period a year earlier. Hardest hit was Colorado, where wind caused extensive erosion on 2.5 million acres, versus less than $\frac{3}{4}$ million the year before. SCS says that cropland suffered 80% of the damage in the 10 States surveyed.

HOLD THE BUTTER, HOLD THE SALT. . . There may be less popcorn to put it on. Growers planted 156,300 acres to popcorn this year, down 27% from last year and 33% less than in 1975. All major producing States recorded acreage decreases, although Indiana and Nebraska, which produce more than half the crop, notched the smallest percentage drop. The Crop Reporting Board estimates last year's crop at a record 608 million pounds, 1% higher than indicated in the preliminary estimate last January.

INCREASING THE YIELD. . . Alternating irrigated with dryland wheat will increase production by 10%. So says a USDA scientist after a 4-year study at Southwestern Great Plains Research Center in Texas. Since water remains in the soil after irrigated wheat is harvested, dryland planting would use that moisture and boost the farmer's output. When dry and irrigated wheat were alternated, yields jumped 5 bushels per acre over wheat fields using only one method continuously.

MINK PRICES UP. . . Mink production dipped a bit in 1976 although value rose. U.S. ranchers produced 3 million pelts, down 1% from a year earlier. However, escalating prices boosted earnings to nearly \$88 million, compared with 1975 sales of slightly less than \$74 million. The average price per pelt was \$29.10; it was \$24.10 in 1975. Wisconsin remained the number one mink State with 260 ranches, while mink ranches in general declined 6% to 1,015. SRS figures showed a 6% rise this year in females bred to produce kits.

YOUR MONEY'S WORTH. . . Making the correct investment at the right time—USDA's Economic Research Service (ERS) has prepared a handbook for business managers, including farmers, on just how to do it. For example, should a manager invest in a larger inventory or more land? Should a farmer purchase additional fertilizer or put the money toward a longer term project such as fencing? The publication provides formulas that can be applied to business decisions like these, or to a number of household decisions such as determining how much money must be saved each month at a given rate of interest to reach a specific savings goal 5 years in the future. A single free copy of *The Evaluation of Investment Opportunities: Tools for Decisionmaking in Farming and Business*, AH-349, is available by writing to ERS Publications, Room 0054-S, USDA, Washington, D.C. 20250, or phone (202) 447-7255.

GRAPE AID. . . Separating the grape from the stems and leaves has been a job meant for the hands—until now. An engineer with USDA's Agricultural Research Service in Michigan has developed a sorter that may be integrated into regular mechanical harvesting systems. The grapes are detached from their stems and fall through a chain belt into boxes while the rest of the plant is carried off. The sorter may help the industry convert to cost-saving bulk handling methods. In 1975, Michigan growers used bulk handling for roughly 10% of all processing grapes harvested mechanically (about 95% of the crop). By 1980, the total may reach 40%.

TOEHOLD IN KUWAIT. . . During 1977, Kuwait is expected to import \$520 million in agricultural products, but will probably spend only about 3% of that total on U.S. goods. USDA economists say the Kuwaitis will buy larger amounts of frozen poultry, barley, pulses, and processed foods from the U.S. this year, spending anywhere from \$15 million to \$21 million—the peak reached in 1974. Population growth, rising incomes, and improved market facilities in the oil-rich nation have caused Kuwait's farm product imports to triple since 1972, but U.S. exporters have failed to capture more than a small share of the booming market.

Statistical Barometer

Item	1975	1976	1977—latest available data
Farm Food Market Basket:¹			
Retail cost (1967=100)	174	175	179
Farm value (1967=100)	187	179	178
Farmer's share of retail cost (percent)	42	40	39
Cattle Inventory, July 1			
Cattle and calves (mil. head)	140.1	133.6	130.6
Cows and heifers that have calved (mil. head)	58.0	53.9	52.3
Beef cows (mil. head)	46.9	42.8	41.3
Milk cows (mil. head)	11.1	11.0	11.0
Heifers 500 pounds and over (mil. head)	18.9	18.9	18.4
For beef cow replacements (mil. head)	7.4	6.5	5.9
For milk cow replacements (mil. head)	3.9	3.9	4.0
Other heifers (mil. head)	7.6	8.4	8.5
Steers 500 pounds and over (mil. head)	17.3	18.7	18.7
Bulls 500 pounds and over (mil. head)	3.1	2.8	2.7
Heifers, steers, and bulls under 500 pounds (mil. head)	42.8	39.4	38.5
Calves born (mil. head) ²	50.4	47.4	46.1
Farm Production and Efficiency:			
Farm output, total (1967=100)	114	117	116
Livestock (1967=100) ³	101	106	108
Meat animals (1967=100)	102	106	108
Dairy products (1967=100)	98	103	105
Poultry and eggs (1967=100)	103	113	111
Crops (1967=100) ⁴	121	122	124
Feed grains (1967=100)	114	119	119
Hay and forage (1967=100)	107	102	104
Food grains (1967=100)	142	140	132
Sugar crops (1967=100)	131	131	115
Cotton (1967=100)	112	142	182
Tobacco (1967=100)	111	108	91
Oil crops (1967=100)	153	130	159

¹Average annual quantities per family and single person households bought by wage and clerical workers, 1960-61, based on Bureau of Labor Statistics figures.

²For 1977, the calf crop is the number of calves born before July 1 plus the number expected to be born after July 1.

³Gross livestock production includes minor livestock products not included in the separate groups shown. It cannot be added to gross production to compute farm output.

⁴Gross crop production includes some miscellaneous crops not in the separate groups shown. It cannot be added to gross livestock production to compute farm output.



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